drafting their agreements in compliance with our findings, we choose between these competing sets of contract language, as well as resolve the specific disputes that the parties have presented. Thus, we adopt Verizon's proposed language regarding dark fiber with modifications or with petitioner's language inserted as needed to accord with our analysis below.[1481] We conclude that Verizon's language provides a better starting point than AT&T's because Verizon's language requires less adjustment to comply with our holdings. Verizon's language provides a better starting point for its agreement with WorldCom because Verizon's language provides greater detail, which will aid enforcement and minimize potential disputes.[1482]

447. We deny WorldCom's motion to strike as it relates to the issue of dark fiber.[1483] In its response to WorldCom's motion, Verizon indicates that it provided the contested language to WorldCom in its answer.[1484] The hearing transcript confirms that WorldCom's counsel cross examined Verizon witnesses at length regarding the language that is now the subject of WorldCom's motion to strike.[1485] The questioning by WorldCom's counsel on the effect of the proposed language dispel any doubt that WorldCom was indeed afforded adequate notice and opportunity to review this proposal.

b. Access at Hard Termination Points

(i) Positions of the Parties

448. AT&T proposes that Verizon should permit AT&T to access dark fiber at multiple points in Verizon's network.[1486] Specifically, AT&T contends that Verizon must permit access at splice points, regenerator or optical amplifier equipment, and "stubbed fibers" in remote terminals.[1487] AT&T maintains that such access is technically feasible, and that denying access would be discriminatory, and for these reasons Verizon must provide access under section 251(c)(3) of the Act.[1488] AT&T contends there can be no question that splice point access is technically feasible because the Massachusetts Department requires Verizon to include splice

[1481] *See supra,* Standard of Review, for discussion of when we deviate from "final offer" arbitration

[1482] *See, e.g.*, WorldCom Brief at 2-3, 125 (arguing for detailed contract language).

[1483] WorldCom Motion to Strike, Ex. A at 23-27.

[1484] Verizon Response, Ex. B at 11-13.

[1485] *See* Tr. 396-399 (WorldCom counsel questions Verizon witness closely on the effect of Verizon's November Proposed Agreement to WorldCom, section 7.2.2).

[1486] AT&T's November Proposed Agreement to Verizon, § 11.2.15.2.

[1487] Verizon refers to fiber that is not terminated or spliced to other fiber but rather left sealed, as for possible use in a future project, as "stubbed fiber." Tr. at 386-87. *See also* AT&T Brief at 140, n.468.

[1488] AT&T Ex.1 (AT&T Pet.), at 200; AT&T Brief at 138; AT&T Reply at 80-81.

point access to dark fiber in its tariff.[1489] AT&T further argues that, because Verizon splices into stubbed fiber for its own purposes, access to stubbed fiber in remote terminals also is technically feasible.[1490]

449. WorldCom also proposes to access fiber at splice points.[1491] WorldCom argues that BellSouth's agreement to splice point access on the terms WorldCom seeks here indicates that the access WorldCom seeks is technically feasible.[1492] In particular, WorldCom contends that, according to the Commission's subloop unbundling rules, BellSouth's agreement to splice point access means that Verizon bears the burden of proving that such access is *not* technically feasible, and that Verizon has not met that burden.[1493] WorldCom maintains that the Commission's subloop unbundling rules do not prohibit accessing dark fiber through splice points in manholes or vaults.[1494] WorldCom further argues that, because Verizon routinely performs new splices for itself, limiting fiber access to hard termination points as Verizon proposes is discriminatory.[1495] WorldCom dismisses as misleading and inaccurate Verizon's claim that requiring splices at points other than hard termination points would impose a construction requirement on Verizon.[1496]

450. Verizon maintains that, as a threshold matter, fiber with regenerator or optical amplifiers is, by definition, not "dark," so regenerators or amplifiers cannot serve as points of access to dark fiber.[1497] Verizon further argues that AT&T and WorldCom misread the Commission's rules and reasoning relating to subloop unbundling, which, Verizon states, specifically limit the incumbent's unbundling obligation to accessible terminals.[1498] Verizon disagrees that denying access at splice points is discriminatory, arguing instead that access at

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[1489] AT&T Brief at 140 and AT&T Reply at 81, both citing Tr. at 381.

[1490] AT&T Ex.1, at 200; AT&T Brief at 138; AT&T Reply at 80-81.

[1491] WorldCom's November Proposed Agreement to Verizon, § 5.2.5; WorldCom Brief at 119-124; WorldCom Reply at 97.

[1492] WorldCom Brief at 119-20; WorldCom Reply at 97, citing WorldCom Ex. 5 (Direct Testimony of C. Goldfarb *et al.*), at 30; WorldCom Ex. 13 (Rebuttal Testimony of C. Goldfarb *et al.*), at 15.

[1493] WorldCom Brief at 119-20 & n.67; WorldCom Reply at 97, citing 47 C.F.R. § 51.319(a)(2)(ii) (subloop unbundling presumed technically feasible).

[1494] WorldCom Brief at 120; WorldCom Reply at 97, citing 47 C.F.R. § 51.319(a)(2) (accessible terminals for subloop unbundling are any point on loop where technicians can access wire or fiber without removing splice case).

[1495] WorldCom Brief at 122-23, citing Tr. at 371-73, 375, 377; WorldCom Reply at 97.

[1496] WorldCom Reply at 98, citing Verizon UNE Brief at 57.

[1497] Verizon Answer at 109; Verizon UNE Brief at 57.

[1498] Verizon UNE Brief at 60; Verizon UNE Reply at 33-34; *UNE Remand Order*, 15 FCC Rcd at 3789-90, para. 206; 47 C.F.R. § 51.319(a)(2).

hard termination points satisfies Verizon's unbundling obligation, and that requiring access at points other than such terminals would require Verizon to perform construction.[1499] Verizon also contends that access to the fiber at splice points is not technically feasible, because access to the fiber other than at hard termination points would degrade the fiber's transmission capability and could disrupt working customer service.[1500] Verizon states that creating new splice points, or breaking into sealed ones, is neither operationally reasonable nor accepted engineering practice, and would jeopardize the integrity of the network.[1501] Verizon responds to AT&T's evidence that Massachusetts accepts splice point access by noting that the New Jersey Board takes the opposite position, and cites the New Jersey Board's statement that "splicing into dark fiber is an inefficient and wasteful use of these valued facilities."[1502]

(ii) Discussion

451. Based on the record before us, we find that Verizon's language limiting access to hard termination points accords with the Commission's rules, and we adopt Verizon's proposal to AT&T section 11.2.15.2 and proposals to WorldCom sections 7.2.2 and 7.2.5 insofar as they require access at hard termination points only.[1503] We also adopt WorldCom's proposed section 5.1, which provides that Verizon may not remove lightwave repeaters such as regenerators or optical amplifiers from unbundled dark fiber.[1504] We agree with Verizon that network reliability and security are important aspects of technical feasibility analysis.[1505] Verizon casts doubt on the technical feasibility of splice point access when it claims that the practice could "jeopardize the integrity of Verizon VA's network" and "impact the transmission capabilities of the fiber optic facilities."[1506] The record indicates that Verizon does not routinely practice splice point access to

[1499] Verizon UNE Brief at 60; Verizon UNE Reply at 36.

[1500] Verizon Answer at 109-10; Verizon UNE Brief at 61, citing Verizon Ex. 15, at 17; Verizon UNE Reply at 35.

[1501] Verizon UNE Brief at 61, citing Tr. at 389, 398-99, 455.

[1502] Verizon UNE Reply at 35, citing New Jersey Board Meeting, Docket No. TO0060356, *In the Matter of the Board's Review of Unbundled Network Element Rates, Terms and Conditions of Bell Atlantic-New Jersey, Inc.*, at 28-29 (Nov. 20, 2001.)

[1503] Verizon's November Proposed Agreement to WorldCom, Part C, Network Elements Attach., §§ 7.2.2 and 7.2.5; Verizon's November Proposed Agreement to AT&T, § 11.2.15.2. Consequently, we reject WorldCom's proposed Part C, Attachment III, section 5.2.5 and that part of section 5.3.2 from the phrase "For connections at a splice point" through the end of the section. To bring the section into conformity with our holding in the subsection addressing "Inter Office Fiber Routes" discussed immediately below, the words "or more" are inserted between the phrases "between two" and "Verizon central offices" in Verizon's November Proposed Agreement to AT&T, § 11.2.15.2(ii).

[1504] WorldCom's November Proposed Agreement to Verizon, Part C, Attach. III, § 5.1.

[1505] Verizon UNE Brief at 61, citing, *Local Competition First Report and Order*, 11 FCC Rcd at 15605-06, para. 203.

its fiber for retail operations, and in weighing the evidence of technical feasibility we consider it significant that Verizon avoids the procedure because of possible risk to its facilities.[1507]

452. We reject WorldCom's argument that the presumption of technical feasibility in the subloop unbundling rules, coupled with BellSouth's agreement to WorldCom's terms and the Massachusetts Department's order, means that Verizon must agree to splice point access.[1508] We agree with WorldCom, however, that access to fiber at points other than at a central office is, in effect, access to a fiber subloop, and is therefore subject to the Commission's subloop rules and analysis. The Commission's subloop unbundling rules do not address splice point access to dark fiber, but instead mandate access to subloops at terminals in the incumbent's plant.[1509] Although the Commission noted that such terminals might occur in a variety of forms, the Commission explained that competitive LECs would have access at three basic locations: at or near the customer premises; at the main distribution frame; and anywhere that feeder and distribution plant meet.[1510] The Commission's subloop unbundling analysis thus applies, at least in the copper wire context, to a limited number of accessible terminals. Moreover, the Commission specifically limited access to copper wire subloops to terminals, and declined to require the splice point access that AT&T and WorldCom request.[1511] The Commission has not specifically required unbundling at splice points or created a presumption of feasibility; thus, we find no

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[1506] Verizon UNE Brief at 61; Verizon UNE Reply at 34-35 ("Repeatedly opening splice cases to provide access to individual fibers threatens the integrity of Verizon VA's physical network, negatively affects the transmission capabilities of its fiber optic facilities, and poses operational risk to other services riding the fiber ribbon or cable); Verizon Ex. 1 (Direct Testimony of M. Detch *et al.*), at 20-21.

[1507] Verizon UNE Brief at 61, citing Tr. at 389, 398-99, 455 ("Verizon's offering with no access at splice points is at parity with how we offer our other service. . . if there is no fiber into the building, Verizon would never splice out two strands from a cable to go into a customer building.").

[1508] WorldCom Brief at 120, citing WorldCom Ex. 13 (Rebuttal Testimony of C. Goldfarb *et al.*), at 19 (operational questions associated with access to dark fiber are resolvable through good faith negotiations as evidenced by BellSouth's agreement to WorldCom's terms); 47 C.F.R. § 51.319(a)(2).

[1509] 47 C.F.R. § 51.319(a)(2).

[1510] *UNE Remand Order*, 15 FCC Rcd at 3789-90, para. 206.

[1511] *Id.* at n.395:

> Accessible terminals contain cables and their respective wire pairs that terminate on screw posts. This allows technicians to affix cross connects between binding posts of terminals collocated at the same point. Terminals differ from splice cases, which are inaccessible because the case must be breached to reach the wires within. For a discussion of outside plant, *see* Green, James Harry, *The Irwin Handbook of Telecommunications*, McGraw Hill, New York (3rd Ed. 1997), at ch. 6.

"best practices" presumption of feasibility for splice point access that is automatically binding on Verizon.[1512]

453. We are not persuaded by WorldCom's argument that, because there are hundreds of splices in any real fiber cable, Verizon routinely splices fiber in its own network.[1513] WorldCom apparently refers to the initial splicing of fiber cable segments, which we are not convinced presents the same operational risks as reopening the cable, perhaps repeatedly, for spliced access at manholes, as WorldCom proposes.[1514] Instead, we find credible Verizon's testimony that the access WorldCom desires differs materially from Verizon's own splices.[1515] We also reject AT&T's argument that Verizon's admitted policy of returning to stubbed fiber in order to complete fiber routes proves that splicing is both feasible and practiced by Verizon.[1516] The record suggests, rather, that Verizon does not perform such splices for itself routinely, and splices into sealed fiber stubs rarely and for compelling reasons, such as to extend the network.[1517] It does not appear discriminatory for Verizon to withhold from competitive LECs a form of access that Verizon itself prefers not to use because it considers that access to be risky and operationally unsound, notwithstanding that Verizon may resort to an analogous procedure on relatively rare occasions to construct new facilities. Because the current record does not allay concern regarding the effect on the fiber's capacity or integrity of multiple or repeated invasive practices, the agreements should include Verizon's limit of access to hard termination points.[1518]

454. Because we find Verizon's limit on access to hard termination points to be reasonable and compatible with the Commission's rules, we do not direct Verizon to permit AT&T to access fiber at regenerators or amplifiers. We reject, however, Verizon's argument that

[1512] In other words, we interpret 47 C.F.R. § 51.319(a)(2)(iii) (if any state finds that unbundling at a given point is technically feasible, the burden is henceforth on incumbents to show otherwise) to be confined to accessible terminals as described in 47 C.F.R. § 51.319(a)(2) (access to subloops limited to accessible terminals).

[1513] WorldCom Brief at 120, citing Tr. at 371-373, 375.

[1514] *Id.*

[1515] Tr. at 375 (Verizon witness Detch: "When and if Verizon splices fiber together, they're splicing cables in its entirety, not a strand here and a strand there, to create a fiber route.")

[1516] AT&T Brief at 139-40, citing Tr. at 398-400.

[1517] Tr. at 389.

[1518] The forthcoming triennial review of incumbent LECs' unbundling obligations may provide a better forum for the Commission to reassess subloop unbundling as it applies to fiber than the present arbitration does. *Review of Section 251 Unbundling Obligations of Incumbent Local Exchange Carriers*, CC Docket No. 01-338; *Implementation of the Local Competition Provisions of the Telecommunications Act of 1996*, CC Docket No. 96-98; *Deployment of Wireline Services Offering Advanced Telecommunications Capability*, CC Docket No. 98-147, Notice of Proposed Rulemaking, FCC 01-361, 16 FCC Rcd 22781 (rel. Dec. 20, 2001) (*Triennial UNE Review NPRM*).

fiber with regenerators or amplifiers has electronics and so, by definition, is not dark fiber.[1519] In the context of dark fiber, we find that the word "electronics" refers to the electronic devices at either end of the fiber that activate or "light" the fiber and enable it to carry traffic.[1520] To give the word "electronics" the broader reading that Verizon suggests, and include within that term the regenerators or amplifiers along the fiber which are routinely necessary to carry signals over long distances, would undercut the rule's stated intent of giving competitive carriers access to incumbent LECs' unused loop and transport capacity.[1521] For this reason, Verizon may not remove them.[1522]

c. Inter-Office Fiber Routes

(i) Positions of the Parties

455. The parties dispute whether a dark fiber transport route may pass through intermediate central offices, or must be leased in segments directly between wire centers where the requesting carrier is collocated. AT&T proposes language that would prevent Verizon from limiting access to dark fiber to "continuous paths," a policy that would make dark fiber available only between central offices where AT&T is collocated.[1523] AT&T argues that Verizon should instead splice fiber to create new fiber routes.[1524] AT&T maintains that creation of such routes meets the definition of dark fiber, to the extent such fiber is accessible, available, and otherwise physically connected to Verizon's network.[1525] WorldCom similarly argues that language that essentially establishes a collocation requirement constrains WorldCom's use of fiber in a manner that goes beyond the Commission's rules.[1526] WorldCom also argues that Verizon's requirement that WorldCom establish collocation to access fiber unreasonably limits WorldCom's ability to use dark fiber.[1527]

[1519] Verizon Answer at 109; Verizon UNE Brief at 57.

[1520] *See, e.g., UNE Remand Order*, 15 FCC Rcd at 3776, para. 174 ("Dark fiber is fiber that has not been activated through connection to the electronics that "light" it, and thereby render it capable of carrying communications services.").

[1521] *UNE Remand Order*, 15 FCC Rcd at 3776, 3844, para. 174, 326.

[1522] WorldCom's proposed Attachment III, section 5.1, adopted above, prevents Verizon from such action.

[1523] AT&T's November Proposed Agreement to Verizon, § 11.2.15.2.

[1524] AT&T Brief at 139-40.

[1525] *Id.*

[1526] WorldCom Brief at 120.

[1527] *Id.* at 123, citing Verizon's proposed §§ 7.2.1 and 7.3.

456. Verizon maintains that any requirement to splice dark fiber for a competitor is contrary to the Commission's description of dark fiber as "unused loop capacity that is physically connected to facilities that the incumbent LEC currently uses to provide service; was installed to handle increased capacity and can be used by competitive LECs without installation by the incumbent."[1528] Verizon also argues that limiting its dark fiber offering to paths connecting two central offices with no intermediate offices is consistent with the Commission's statement that fiber "connects two points," and has been endorsed by the New York Commission.[1529] According to Verizon, fiber that must spliced does not meet the Commission's definition of dark fiber because it necessarily requires "installation" by the incumbent, and is not "physically connected" to the facilities that Verizon uses to provide service.[1530] Verizon's proposed definition of, and subsequent references to, dark fiber specify that it be continuous and between two Verizon central offices.[1531]

(ii) Discussion

457. We do not require Verizon to splice new routes in the field, as the agreement reflects in Verizon's proposal to AT&T section 11.2.15.2 and proposals to WorldCom sections 7.2.2 and 7.2.5, adopted above.[1532] As we explain above regarding splice point access, it appears likely that unlimited splicing could damage the network and is contrary to Verizon's own practice. We reject, however, Verizon's position that connecting fiber routes at central offices may not be required of Verizon, and therefore we reject Verizon's proposed section 7.2.3 and, where we adopt Verizon's language, we require Verizon to strike the word "continuous" and to amend the phrase "two Verizon central offices" to "two or more Verizon central offices" wherever that phrase is used.[1533] We agree with WorldCom that Verizon's refusal to route dark fiber transport through intermediate central offices places an unreasonable restriction on the use of the fiber, and thus conflicts with Commission rules 51.307 and 51.311.[1534] In particular, we reject Verizon's argument against requiring such connection because the *UNE Remand Order*

[1528] Verizon UNE Reply at 36-37, citing, *UNE Remand Order*, 15 FCC Rcd at 3776, para. 174, n.323.

[1529] Verizon UNE Brief at 57, citing *Re Digital Subscriber Line Services*, Order Granting Reconsideration In Part and Denying Reconsideration part, and Adopting Schedule, Case No. 00-C-0127, 2001, WL 322813 *7 (issued by New York Comm'n on Jan. 29, 2001); Verizon UNE Reply at 36-37, citing *UNE Remand Order*, 15 FCC Rcd at 3843-44, para. 325.

[1530] Verizon UNE Reply at 36-37.

[1531] *See, e.g.*, Verizon's November Proposed Agreement to WorldCom, Part C, Network Elements Attach., § 7.2.3; Verizon's November Proposed Agreement to AT&T, §§ 11.2.15.1; 11.2.15.2(ii); 11.2.15.5(ii).

[1532] *See supra* para. 450 (Access at Hard Termination Points),

[1533] *Id.*

[1534] 47. C.F.R. § 51.307: Duty to provide access on an unbundled basis to network elements; 47. C.F.R. § 51.311: Nondiscriminatory access to unbundled network elements.

describes dark fiber as "physically connected" and "without installation."[1535] In context, the text Verizon cites explains how an incumbent's dark, unused fiber differs from unused capacity that is stored on spools in a warehouse. We decline to expand this holding and read these phrases to impose limits on either WorldCom's or AT&T's ability to use dark fiber. The more reasonable reading of these phrases is that dark fiber has already been installed in the network, and not that Verizon may decline to cross connect fiber at intermediate central offices to complete a route.[1536] Moreover, Verizon's interpretation could lead to a wasteful use of finite central office collocation space. Finally, we find that a requirement that a requesting carrier submit separate requests or orders for each leg of a fiber route places an unreasonable burden on carriers that is not comparable to Verizon's own information about and access to its fiber, and that is therefore inconsistent with the nondiscrimination requirements of the Act and the Commission's rules.[1537]

d. Reservation While Ordering

(i) Positions of the Parties

458. AT&T proposes that Verizon should permit AT&T to reserve fiber for 90 days after confirmation of request by AT&T for such facilities.[1538] AT&T argues that denying AT&T this ability would violate the Act's nondiscrimination requirement and Commission rules forbidding incumbents to treat themselves more favorably than competitive LECs.[1539] AT&T contends that, unless it has the ability to reserve dark fiber for the time necessary to install or augment its collocation, it risks collocating or augmenting its collocation only to find that the fiber is no longer available.[1540] AT&T further maintains that a 90-day hold would be sufficient

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[1535] Verizon Answer at 110, citing *UNE Remand Order*, 15 FCC Rcd at 3776, para. 174, n.323. The entire footnote is as follows:

> In designating dark fiber as a network element, we acknowledge that some facilities that the incumbent LEC currently uses to provide service may not constitute network elements (*e.g.* unused copper wire stored in an incumbent LEC's warehouse). Defining all such facilities as network elements would read the "used in the provision" language of section 153(29) too broadly. Dark fiber, however, is distinct in that it is unused loop capacity that is physically connected to facilities that the incumbent LEC currently uses to provide service; was installed to handle increased capacity and can be used by competitive LECs without installation by the incumbent Thus, we conclude that dark fiber falls within the statutory definition of a network element.

[1536] We concur with the New Jersey Board that requiring collocation at intermediate central offices would needlessly inflate the cost of using dark fiber. New Jersey Board Meeting, Docket No. TO0060356, *In the Matter of the Board's Review of Unbundled Network Element Rates, Terms and Conditions of Bell Atlantic-New Jersey, Inc.* at 11-12, (Nov. 20, 2001).

[1537] 47 U.S.C. § 251(c)(3); 47 C.F.R §§ 51.311 & 51.319(g).

[1538] AT&T's November Proposed Agreement to Verizon, § 11.2.15.3; AT&T Ex.1, at 193; AT&T Brief 141.

[1539] AT&T Ex.1, at 193; AT&T Brief at 140-41.

[1540] Tr. at 463-64.

for its needs and a reasonable business practice.[1541] WorldCom and A&T each propose that Verizon hold fiber they order for ten business days after they receive written confirmation of the availability of fiber.[1542]

459. Verizon proposes language prohibiting such reservations, and argues that it does not allow any carrier, including itself, to reserve dark fiber.[1543] Specifically, Verizon notes that its proposal enables it only to use Dark Fiber Loops and Dark Fiber IOF for maintenance purposes, and/or to satisfy customer orders for fiber related services."[1544] Verizon testifies that it is developing a process of "parallel provisioning" in Pennsylvania which allows competitive LECs to apply for collocation space and order fiber simultaneously, so that Verizon is able to provision the fiber shortly after the collocation is installed.[1545] Verizon further states that trials of parallel provisioning in Pennsylvania remain incomplete, and that further Virginia-specific trials would be necessary before parallel provisioning could be introduced in Virginia.[1546]

(ii) Discussion

460. Consistent with the nondiscrimination requirement of the Act, AT&T and WorldCom have the right to reserve fiber while filling received customer orders, so we adopt AT&T's proposed section 11.2.15.3 from the beginning up to and including the phrase "for a period of 90 days after confirmation of a request for such facilities by AT&T."[1547] Permitting AT&T to hold fiber for 90 days puts AT&T, which may need to build or augment collocation, on a more equal footing with Verizon, which is able to assign fiber immediately to satisfy customer requirements.[1548] AT&T's requested ability to hold fiber for 90 days to fill such orders is

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[1541] AT&T's November Proposed Agreement to Verizon, § 11.2.15.3; AT&T Brief at 141; Tr. at 464.

[1542] WorldCom's November Proposed Agreement to Verizon, Part C, Attach. III, § 5.2.4; AT&T November Proposed Agreement to Verizon, § 11.2.15.4.

[1543] Verizon's November Proposed Agreement to WorldCom, Part C, Network Elements Attach., § 7.2.11; Verizon's November Proposed Agreement to AT&T, § 11.2.15.3; Verizon Answer at 106; Verizon UNE Brief at 64.

[1544] Verizon's November Proposed Agreement to AT&T, § 11.2.15.3.

[1545] Tr. at 465.

[1546] *Id.* at 464-68.

[1547] Because we intend to bring AT&T's access to dark fiber closer to parity with Verizon's ability to access fiber to satisfy customer orders, we insert the phrase "to satisfy customer orders" into AT&T's November Proposed Agreement to Verizon, section 11.2.15.3, between the phrases "after a confirmation of request for such facilities" and "by AT&T." We also strike the final phrase of Verizon's November Proposed Agreement to AT&T, section 11.2.15.6, "before it submits an order for such access," because the requirement is incompatible with parallel provisioning procedures.

[1548] Verizon may likewise refrain from providing such facilities to requesting carriers for a period of 90 days after confirmation of a request from its customers. This finding is consistent with the Commission's rule that an incumbent LEC may retain a limited amount of floor space for its own specific future uses, provided, however, that neither the incumbent LEC nor any of its affiliates may reserve space for future use on terms more favorable than (continued....)

commercially reasonable and avoids the risk of stranded investment in collocation or augmentations to collocated equipment.[1549] Holding fiber briefly to fill customer requirements does not constitute "warehousing" or "hoarding," as Verizon characterizes AT&T's proposal."[1550] Such terms are out of proportion to the 90-day duration of the proposed hold. Verizon's parallel provisioning process appears to offer a viable and practical solution to the risk of stranded collocation, but we note that the process is still under development. Once Verizon's parallel provisioning process is fully tested and implemented throughout Virginia, a separate 90-day hold on fiber may no longer be necessary.[1551]

461. We adopt WorldCom's proposed section 5.2.4 and strike Verizon's proposed section 7.2.11 as it pertains to reservation of fiber during the preordering and ordering procedures. After receiving written confirmation that usable fiber exists, WorldCom may hold the fiber for ten business days. This very brief hold between the pre-ordering and ordering phase is commercially reasonable, and is consistent with Verizon's first-come, first-served policy, in that fiber is allotted to requesting carriers in the order they request it.[1552] WorldCom's proposal protects its interests during the ordering process, so that fiber is not withdrawn between the pre-ordering and ordering phases of the order. This also helps make WorldCom's access more equal to that of Verizon, which, as the incumbent, does not signal the fiber it wishes to use to its competitor through a pre-ordering process. Thus, WorldCom's proposal accords with the nondiscrimination requirement of the Act. Because it addresses the needs of a fully-collocated competitive LEC, it should remain in place even after full implementation of parallel provisioning in Virginia.[1553] For the same reasons, we adopt AT&T's proposed ten business day hold on fiber between the pre-order and ordering phases of an order.[1554]

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those that apply to other telecommunications carriers seeking to reserve collocation space for their own future use. 47 C.F.R. § 51.323(f)(4). *See also* 47 C.F.R. § 51.313(b) (incumbents shall provide access to UNEs on terms and conditions no less favorable than the incumbent provides to itself).

[1549] We note that the 90-day period we adopt in this agreement corresponds to the Commission's rule that an incumbent LEC must complete provisioning of a requested physical collocation arrangement within 90 days after receiving an application that meets the incumbent LEC's established collocation application standards. 47 C.F.R. § 51.323(l)(2).

[1550] Verizon UNE Brief at 58. Verizon Ex. 1, at 16-17.

[1551] AT&T Brief at 141.

[1552] We note that the parties are in fundamental agreement on "first come, first served:" *compare* Verizon Testimony Tr. at 403-04 ("[Fiber] is available to any customer first come first serve.") *with* WorldCom's November Proposed Agreement to Verizon, Part C, Attach. III, § 5.2.4 ("Verizon shall provide Dark Fiber on a first come, first served basis.")

[1553] 47 U.S.C. § 251(c)(3). Specifically, WorldCom is placed on a more even footing with Verizon, which need not submit a pre-order inquiry.

[1554] *See infra* subsection G "Information and Operational Issues."

e. "Unused Transmission Media"

(i) Positions of the Parties

462. AT&T proposes that the agreement should use the term "unused transmission media" instead of the term "dark fiber."[1555] AT&T argues that "unused transmission media" more accurately reflects the extent of Verizon's obligation to unbundle the "facility or equipment used in the provision of a telecommunications service" – the relevant obligation under the Act – which the Commission interprets to include "unused transport capacity."[1556] According to AT&T, it is immaterial that the *UNE Remand Order* discusses fiber rather than coaxial cable or other transmission media, because the Commission's analysis pertains equally to any facility the incumbent uses to carry traffic.[1557]

463. Verizon maintains that, in the *UNE Remand Order*, the Commission intended to define dark fiber as encompassing only fiber optic cable because the Commission used fiber-specific language to define the term: "unused fiber through which no light is transmitted, or installed fiber optic cable not carrying a signal."[1558] Verizon notes that, by contrast, the term "unused transmission media" appears nowhere in the order. Verizon further argues that the term "unused transmission media" is vague and overly broad, and therefore is not an appropriate term for an interconnection agreement.[1559]

(ii) Discussion

464. We reject AT&T's proposal to replace the term "dark fiber" with the term "unused transmission facilities," and any of AT&T's proposed language that we adopt should be amended to conform to this decision. We likewise reject WorldCom's proposed section 5.4, which also seeks to incorporate the term "unused transmission facilities."[1560] The practical effect of adopting AT&T's novel terminology is unclear; for example, the record does not reveal how much unused coaxial cable is at issue or whether transmission media other than copper wire and coaxial cable may be implicated. Because both the *UNE Remand Order* and the Commission's rules use the term "dark fiber," the meaning of that term is more fixed and clear than the meaning

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[1555] AT&T's November Proposed Agreement to Verizon, § 11.2.15.1; AT&T Ex. 1, at 191-92; AT&T Brief at 138 n.463.

[1556] AT&T Ex. 1, at 191, citing 7 U.S.C. § 3(29); *UNE Remand Order*, 15 FCC Rcd at 3844, para. 326.

[1557] AT&T Ex. 1, at 191; AT&T Brief at 138, n.463, citing Tr. at 461.

[1558] Verizon Answer at 105-06, citing *UNE Remand Order*, 15 FCC Rcd at 3771, para. 162 n.292; Verizon UNE Brief at 62-63.

[1559] Verizon Answer at 106; Verizon UNE Brief at 63.

[1560] WorldCom's November Proposed Agreement to Verizon, Part C, Attach. III, § 5.4.

of "unused transmission media."[1561] For the purpose of these agreements, this clarity outweighs the possibility that the phrase "unused transmission media" may in the abstract better express an incumbent's obligation.

f. Upgrades and Installations

(i) Positions of the Parties

465. In its section 11.2.15.3, AT&T proposes requiring Verizon to meet certain conditions before denying a request by AT&T for dark fiber if the denial is based on a reservation of capacity.[1562] Specifically, AT&T proposes that, under such conditions, Verizon may deny AT&T fiber only after making all technically feasible upgrades to its fiber facilities, including upgrading attached electronics in order to generate additional capacity on existing facilities.[1563] WorldCom argues that Verizon's proposals regarding its right to seek emergency relief from the Virginia Commission should be rejected altogether because the suggestion that fiber could be withheld or revoked could discourage competitors from using Verizon's fiber.[1564] AT&T argues that, as the Commission stated in the *UNE Remand Order*, a shortage of dark fiber can easily be averted because the capacity of fiber to carry traffic can be increased significantly by upgrading the electronics that light it.[1565] AT&T further maintains that, when Verizon installs new facilities, or adds to its existing facilities, Verizon must add enough capacity to meet the projected requirements of AT&T.[1566] According to AT&T, for Verizon's compliance with its unbundling obligation to be meaningful, installations of new or additional fiber facilities must include enough capacity to accommodate AT&T's forecasted demand, because otherwise Verizon could evade requests for fiber by simply failing to install sufficient capacity in the network.[1567] AT&T similarly proposes that Verizon should repair any dark fiber that fails to meet design specifications, or that falls short of the service quality that Verizon provides itself.[1568]

466. Verizon responds that it need not upgrade its electronics before denying AT&T fiber because attached electronics fall outside the definition of dark fiber, and because the United

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[1561] *UNE Remand Order*, 15 FCC Rcd at 3771, 3776, 3843-46, paras. 162, 174, 325-330 & nn.262 and 323; 47 C.F.R. §§ 51.319(a)(1) and (d)(1)(ii).

[1562] AT&T's November Proposed Agreement to Verizon, § 11.2.15.3; AT&T Ex.1, at 193; AT&T Brief at 141.

[1563] *Id.*

[1564] WorldCom Brief at 123-24.

[1565] AT&T Ex.1, at 195; AT&T Brief at 141-42. *See UNE Remand Order*, 15 FCC Rcd at 3785-86, 3854, paras. 198, 352 (Upgraded electronics can avert fiber shortages.).

[1566] AT&T Ex.1, at 197.

[1567] *Id.* at 198.

[1568] AT&T's November Proposed Agreement to Verizon, §11.2.15.9; Verizon UNE Brief at 65.

States Court of Appeals for the Eighth Circuit has clarified that the unbundling obligation extends only to the existing network, and not to a yet unbuilt superior network.[1569] Verizon further argues that dark fiber is, by definition, "unused," and that AT&T may not require Verizon to install additional fiber, and then claim entitlement to the fiber because Verizon is not using it.[1570]

(ii) Discussion

467. We agree with Verizon regarding each of these proposals by AT&T. Specifically, we do not require Verizon to upgrade the electronics on its fiber before it may deny a request by AT&T for dark fiber.[1571] The text from the *UNE Remand Order* to which AT&T refers merely notes that, because fiber's capacity can be greatly increased by upgrading the electronics, it is not likely that incumbent carriers, to fulfill their role as carriers of last resort, will need to hold a percentage of their total fiber capacity in reserve; these passages are not relevant to the ability of Verizon to fill any particular order by AT&T.[1572] In its proposed section 11.2.15.3, Verizon refers to its right to claim before the Virginia Commission that Verizon should not have to fulfill an AT&T request for dark fiber because filling the request would, for example, impair Verizon's ability to serve as carrier of last resort.[1573] If Verizon were to bring such a claim before the Virginia Commission, and if Verizon persuaded the Virginia Commission that some reservation of fiber was necessary, the Virginia Commission might well impose conditions, such as technically-feasible upgrades, before granting the requested relief. It is not necessary or appropriate, however, for the agreement to specify in advance the steps the Virginia Commission might take in an emergency. We also reject WorldCom's argument that the possibility that Verizon might seek emergency relief from the Virginia Commission could inhibit competitors from relying on Verizon's fiber. Although the Commission has stated that it regards a fiber shortfall as unlikely, the Commission specifically has not preempted the states' role in overseeing an incumbent carrier's ability to serve as carrier of last resort.[1574] That Verizon may ask the Virginia Commission for emergency relief does not, however, entitle it to claim that relief in advance, and we amend Verizon's proposed section 7.2.10 to clarify that relief from the dark

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[1569] Verizon Answer at 107; Verizon UNE Brief at 64; *Iowa Utils. Bd. v. FCC*, 120 F.3d 753, 813 (8th Cir. 1997), *aff'd. in part and remanded, AT&T v. Iowa Utils. Bd.*, 119 S. Ct. 721 (1999).

[1570] Verizon Answer at 108; Verizon UNE Brief at 64, citing *UNE Remand Order*, 15 FCC Rcd at 3843-45, paras. 324-328.

[1571] The Agreement should use Verizon's proposed § 11.2.15.9, and not the language in AT&T's proposed section 11.2.15.3 which refers to such upgrades. The stricken passage in AT&T's section 11.2.15.3 begins "Verizon must disclose such reservation . . ." and continues to the end of AT&T's proposed section 11.2.15.3.

[1572] *UNE Remand Order*, 15 FCC Rcd at 3785-86, 3854, paras. 198, 352.

[1573] Verizon's November Proposed Agreement to AT&T, §11.2.15.3.

[1574] *UNE Remand Order*, 15 FCC Rcd at 3785-86, 3854, paras. 198, 352.

fiber unbundling obligation may only be obtained upon a showing of need before the Virginia Commission.[1575]

468. Verizon is also correct that the Act does not require it to construct network elements, including dark fiber, for the sole purpose of unbundling those elements for AT&T or other carriers. We reject AT&T's proposal that Verizon be required to factor in AT&T's forecasts when adding capacity to the network. Moreover, Verizon is correct that AT&T may not hold Verizon's dark fiber to a given standard of transmission capacity.[1576] The inclusion of dark fiber within the definition of the loop and transport UNEs gives AT&T access to the best spare fiber that Verizon has readily available, but it does not permit AT&T to specify a standard of transmission capacity that exceeds the current capacity of the available fiber.

g. Information and Operational Issues

(i) Positions of the Parties

469. AT&T proposes that Verizon be required to provide AT&T with fiber layout maps and with a field survey that confirms the availability of dark fiber pairs between two or more central offices.[1577] AT&T argues that it should not be required to pay Verizon to perform field surveys for available fiber with no guarantee that the facilities will remain available after the surveys are complete.[1578] AT&T also argues it should not have to submit multiple inquiries to determine whether fiber exists between two desired locations.[1579] In addition, AT&T contends that Verizon should not be permitted to require a 30-day interval to provision dark fiber, and suggests a 20-day interval would be more reasonable.[1580] Finally, AT&T cites as unreasonable Verizon's position that as few as ten requests per month in a LATA should release Verizon from all provisioning commitments. However, AT&T agrees that some relaxation of provisioning standards may be appropriate when Verizon receives numerous requests for access to dark fiber.[1581]

[1575] We amend Verizon's November Proposal to WorldCom, section 7.2.10, by replacing the phrase "Verizon will limit" with "Verizon may, upon a showing of need to the Commission, limit."

[1576] *Iowa Utils. Bd. v. FCC*, 120 F.3d at 813. The Agreement should include Verizon's rather than AT&T's proposed section 11.2.15.9.

[1577] AT&T's November Proposed Agreement to Verizon, § 11.2.15.5.

[1578] AT&T Brief at 140.

[1579] *Id.* at 140-41.

[1580] AT&T Ex.1, at 210.

[1581] *Id.* at 209.

470. Verizon responds that it does not require, but merely recommends, field surveys to determine the quality, sufficiency, and transmission characteristics of dark fiber.[1582] Verizon maintains that the process of checking the fiber records for the location of fiber and then confirming this information with a field survey is the same method that Verizon uses to confirm whether fiber is suitable for its own use.[1583] Verizon adds that AT&T provides no support for its claim that Verizon's rules are unreasonable, and that Verizon does not intend its "10 requests/30 days" rule to release it from all provisioning requirements, but only that provisioning intervals under such circumstances need to be negotiated individually.[1584]

(ii) Discussion

471. We adopt Verizon's proposals concerning information and provisioning contained in Verizon's sections 11.2.15.4 and 11.2.15.5, provided that those sections are brought into conformity with our holdings above.[1585] Specifically, the parties should use Verizon's section 11.2.15.4 up to and including the phrase "provide AT&T with an estimate of the mileage of those facilities."[1586] We agree, however, with AT&T that it is unreasonable for AT&T to conduct fiber surveys to confirm the existence of viable dark fiber only to run the risk presented by Verizon's language that the fiber is no longer available to AT&T. Therefore, after the phrase "provide AT&T with an estimate of the mileage of those facilities," parties should use AT&T's section 11.2.15.4 from the phrase "Within (10) business days of receipt of Verizon's response "until the end of section 11.2.15.4. These amendments not only conform to our prior holdings, but also put to rest AT&T's concern that it may lose fiber that it has sunk resources into locating during the pre-order process. If, however, AT&T follows Verizon's advice and performs, or engages Verizon to perform on AT&T's behalf, a field survey to confirm the viability of a fiber path, it is reasonable for AT&T to bear the expense of that survey, regardless of the result, just as Verizon must do when it performs such surveys for itself.

472. The parties should also use Verizon's proposed section 11.2.15.5, but we insert into section 11.2.15.5(ii) the words "or more" to the phrase "availability of dark fiber pairs between two *or more* Verizon central offices" so that the section conforms to our holding above

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[1582] Verizon Answer at 112; Verizon UNE Brief at 59.

[1583] *Id.*

[1584] Verizon Answer at 112.

[1585] Verizon's proposed sections 11.2.15.4 and 11.2.15.5 should be brought into conformity with our holdings regarding reservation of fiber during the pre-ordering and ordering process, and regarding fiber routes through intermediate offices.

[1586] The remainder of section 11.2.15.4 is not compatible with our decision regarding reservations on fiber during the ordering process. After the phrase "provide AT&T with an estimate of the mileage of those facilities" section 11.2.15.4 should continue with AT&T's proposed language for that section beginning with the phrase "Within (10) business days of receipt of Verizon's response, AT&T will specify" and continues to the end of AT&T's proposed section 11.2.15.4.

regarding interoffice fiber routes. In addition, to bring section 11.2.15.5(ii) into conformity with our holding regarding reservation of fiber during the ordering procedure, we strike from section 11.2.15.5(ii) the passage that begins "If a field survey shows that a dark fiber pair is available" up to and including the phrase "a field survey subject to a negotiated interval."

473. The Commission has made plain that incumbent LECs must provide to competitors the same detailed underlying information regarding the composition and qualifications of the loop that the incumbent itself possesses.[1587] Verizon does not argue that the obligation to provide access to such information excludes access to maps. In addition, the Commission's rules requiring nondiscriminatory access to UNEs, and specifically to OSS, preclude any requirement by Verizon that AT&T submit multiple inquiries to discover whether fiber is available along each leg of a desired route.[1588]

474. Verizon's provisioning intervals appear reasonable and AT&T provides no evidence to the contrary. Accordingly, we reject AT&T's proposed interval of 20 days in favor of Verizon's language providing for 30 days.

10. Issue IV-14 (Certain Definitions and Operational Terms)

a. Introduction

475. WorldCom proposes that the contract contain certain definitions and operational terms involving access to subloop and advanced services. WorldCom asserts that these proposed sections closely track the Commission's rules and orders. Verizon opposes inclusion of these provisions. With significant modifications described below, we adopt WorldCom's proposals.

b. Positions of the Parties

476. WorldCom argues that these definitions and operational terms are consistent with Commission orders (and the rules promulgated therein), including the *Local Competition First Report and Order, UNE Remand Order,* and *Line Sharing Order*. Some of these proposed sections define terms that appear elsewhere in the agreement.[1589] Among these proposed definitions are: loop, subloop, loop feeder, loop distribution, electronic and manual access to loop make-up information, packet switching, and advanced services terms (*e.g.,* spectral compatibility, binder management, and cross-connects).[1590] WorldCom also suggests that several of the proposed provisions provide implementing details, such as articulating technical

[1587] *UNE Remand Order*, 15 FCC Rcd at 3885, para. 427.

[1588] 47 C.F.R. §§ 51.311 & 51.319(g).

[1589] WorldCom states that only such terms and definitions remain in dispute in this issue. *See* WorldCom Brief at 125.

[1590] WorldCom Brief at 125-127.

specifications.[1591] According to WorldCom, the high degree of detail in its proposal is designed to minimize future disputes. WorldCom argues that we should adopt its proposal because Verizon failed to offer any criticism of WorldCom's language.[1592] Verizon refers to its general provisions governing UNEs as its proposed language for this issue, but offers no specific criticism of WorldCom's language.[1593]

c. Discussion

477. We find, as WorldCom itself suggests, that most of WorldCom's proposed language generally paraphrases Commission rules.[1594] Consistent with our rulings elsewhere in this Order, we determine that such re-statement or paraphrasing of the Commission's rules is unnecessary, and therefore we reject this language.[1595] We further find that Verizon's contractual obligation to comply with "applicable law" is sufficient to protect WorldCom's rights with respect to the Commission rules it seeks to include in its contract. Moreover, because several of these provisions actually differ from our rules, we find that paraphrasing can actually add to, rather than minimize, confusion.[1596] Several proposed sections, however, merit further consideration and, we determine, inclusion in the contract because they provide the parties with guidance about how our rules should operate in a commercial environment. Moreover, we note that Verizon offers no direct response to, or criticism of, WorldCom's proposal. We thus address, in numerical order, only those provisions that do not merely paraphrase the Commission's rules and to which the parties have not agreed.[1597]

[1591] *See, e.g., id.* at 128 (discussing spectrum and binder group management procedures).

[1592] WorldCom Reply at 100.

[1593] *See* Second Revised Joint Decision Point List, Attach. V (UNEs), at 88. The only substantive argument raised by Verizon under this issue heading relates to its proposed 45-day schedule for implementing certain changes in law. *See* Verizon UNE Brief at 70-73; Verizon UNE Reply Brief at 40-41. We address this argument under Issues IV-113/VI-1-E.

[1594] *See, e.g.,* WorldCom's November Proposed Agreement to Verizon, Part C, Attach. III, §§ 4.1, 4.2.1, 4.12.1-3.

[1595] Specifically, we reject sections 4.1, 4.2.1, 4.2.8 (which is also addressed above in Issues III-11/IV-29), 4.2.10.2, 4.2.12 *et seq.*, and 6 *et seq.*

[1596] *Compare, e.g.,* WorldCom's November Proposed Agreement to Verizon, Part C, Attach. III, §§ 4.2.12.2, *with* 47 C.F.R. § 51.231(a)(2) and (3). In this example, we note that WorldCom's proposed language follows the Commission's rule, but also adds a requirement regarding "cable assignments," which is not mentioned in the rule and is not explained by WorldCom.

[1597] Specifically, we address WorldCom's November Proposed Agreement to Verizon, Part C, Attachment III, sections 4.2.2, 4.2.3, 4.2.6.7, 4.2.9, 4.2.10, 4.2.10.1, 4.2.11 *et seq.* These proposed sections remain contested between the parties, according to statements made by WorldCom's counsel during the hearing and in WorldCom's proposed contract, and they are not addressed in other sections of this order. Also, consistent with our approach of addressing only the contested issues identified by the parties, we decline to address the several sections marked by WorldCom as "Agreed." *See* Second Revised Joint Decision Point List, Attach. V (UNEs), at 88-100.

478. We direct the parties to modify WorldCom's proposed section 4.2.2 to read, in its entirety: "When requested by MCIm, Verizon shall provide Loops provisioned over integrated digital loop carrier (IDLC) by removing the circuit from the IDLC system and placing it, where available and at no additional charge to MCIm, onto all-copper facilities to the main distribution frame." The phrase that we have inserted, "where available and at no additional charge to MCIm," is drafted to reflect the possibility that Verizon has no spare copper facilities to reach that customer. With this addition, we find WorldCom's proposal to conform with IDLC language that we have adopted in Issue VII-10 and, for the reasons explained in that Issue, consistent with the Commission's rules and precedent.[1598] Consequently, we find that WorldCom's second (and last) sentence in this section is unnecessary and we direct the parties to delete it.[1599]

479. Consistent with our decision above in Issue III-10-4, we defer consideration of WorldCom's proposed section 4.2.3, which provides for the collocation of DSLAMs "or other DSL equipment" at Verizon's remote terminals when IDLC is present.[1600] We direct the parties to include WorldCom's proposed Attachment III, section 4.2.6.7, which requires Verizon to make xDSL loops and Digital Designed Loops available to WorldCom at the rates set forth in the Pricing Attachment. According to the parties, they have reached agreement that the rates for Digital Designed Loops should be included in this attachment but disagree on xDSL loops.[1601] Because Verizon has failed to explain why xDSL loops should not be included in the Pricing Attachment, the rates for which we will set later in this proceeding, we find WorldCom's proposal reasonable.

480. The parties are directed to include WorldCom's proposed section 4.2.9, requiring Verizon to adopt and comply with all applicable national and international industry standards (*e.g.*, ANSI and ITU) for the provision of advanced services. Again, we find this requirement adds clarity to the parties' interactions, and note that Verizon has offered nothing to suggest that the proposed requirement is unreasonable or counterproductive. We agree that WorldCom's approach of referencing applicable standards is preferable to actually articulating the standards in the contract, because the standards may change over time. For similar reasons, we adopt WorldCom's proposed sections 4.2.10, 4.2.10.1, and 4.2.10.2. These sections establish that the parties shall work cooperatively, using industry standards, to minimize interference and crosstalk.

[1598] *See* Issue VII-10 *infra* (where we adopt Verizon's IDLC proposal to AT&T that contains the "no additional charge to AT&T" language).

[1599] This last sentence in WorldCom's proposal provides that "Verizon shall not charge MCIm any additional rates for the provisioning of Loops over IDLC, as the costs of such provisioning are included in the recurring rate for the Loop."

[1600] *See* Issue III-10-4 *supra*.

[1601] *See* WorldCom's November Proposed Agreement to Verizon, Part C, Attach. III, § 4.2.6.7; Verizon's November Proposed Agreement to WorldCom, Part C, Network Elements Attach., § 3.13.

481. We also find reasonable WorldCom's sections 4.2.11 and 4.2.11.1, which direct the parties to use spectrum management to manage the deployment of xDSL and other advanced services in the network. The first sentence of section 4.2.11.1 requires Verizon to provide its pre-existing spectrum management procedures to WorldCom within ten days after the effective date of the agreement. We note that the Commission's rule 51.231(a)(1) requires incumbents to provide to requesting carriers this information, but does not specify a time-frame.[1602] WorldCom's proposal adds a reasonable deadline to this requirement, and Verizon offers nothing to suggest that this requirement is unreasonable. We also adopt the remainder of WorldCom's proposal, which provides for the development of spectrum management procedures, to the extent they do not yet exist.

482. We adopt in part, and reject in part, WorldCom's proposed sections 4.2.11.2 and 4.2.11.3, which address interfering technologies such as AMI T1 systems. During the hearing, Verizon's witness testified that AMI T1 is an interfering technology that Verizon no longer deploys.[1603] Additionally, this witness stated that Verizon assigns xDSL loops in different binder groups than those containing AMI T1s so that there is no need to remove those binder groups at this time.[1604] Upon hearing Verizon's policy, WorldCom agreed that it would not have an operational problem with AMI T1s in Virginia.[1605] Therefore, we direct the parties to delete those references requiring Verizon to remove AMI T1 systems because, based on our record, such a step appears unnecessary at this time.[1606] Finally, because we have addressed WorldCom's proposed Attachment III, sections 4.4 and 4.5 (related to "loop feeder" and "distribution") above in Issues III-11/IV-19, we will exclude those sections from our discussion.

11. Issue IV-15 (Full Features, Functions, Combinations, Capabilities)

a. Introduction

483. WorldCom contends that the interconnection agreement should mirror, and spell out in detail, Verizon's incumbent LEC obligations under section 251(c)(3). WorldCom contends its proposed language – a one-paragraph "Introduction" to its Network Elements attachment – would prevent discriminatory treatment by Verizon.[1607] While Verizon does not specifically address this issue, it proposes an introductory provision that roughly parallels WorldCom's. We adopt Verizon's proposed language.

[1602] 47 C.F.R. § 51.231(a)(1).

[1603] *See* Tr. at 908.

[1604] *Id.* at 908-09.

[1605] *Id.* at 909.

[1606] Should the demand for xDSL increase in Virginia such that Verizon should begin removing AMI T1s but has not done so, upon WorldCom's request, we would reconsider this decision.

[1607] WorldCom Brief at 101.

b. Position of the Parties

484. WorldCom requests the inclusion of proposed language which, it claims, memorializes Verizon's obligations to provide WorldCom with nondiscriminatory access to UNEs in a manner consistent with "Applicable Law." WorldCom's proposal also memorializes its entitlement (pursuant to rule 51.307) to the full features, functions and capabilities of UNEs.[1608] WorldCom argues that including such details in the interconnection agreement would minimize ambiguity, litigation, and delay.[1609] WorldCom finds no particular fault with Verizon's proposed language, except to suggest that it does not include as much detail as WorldCom's proposal. As an alternative to WorldCom's language, Verizon proposes a paragraph stating (essentially) that "Applicable Law" should govern UNE provisions in the contract.[1610] Verizon provides no further objections to WorldCom's proposed language.

c. Discussion

485. We adopt Verizon's proposed section 1.1, which we find to be consistent with the Commission's rules, and reject WorldCom's proposed section 1.1. We find that both parties' language is inherently consistent with the Commission's rules by referring to "Applicable Law," and note that neither party suggests that the other's language expands or limits the parties' rights or obligations. We agree with WorldCom that additional detail is often desirable and may avoid ambiguity, litigation and delay – but find that certain of the additional detail proposed by WorldCom could have the opposite effect. In at least one respect, WorldCom's proposed language departs from the Commission rule it purports to paraphrase (inserting the word "Combinations" into the middle of the familiar phrase "features, functions, and capabilities").[1611]

486. We also note that, by requiring Verizon to provide UNEs "available when this agreement becomes effective," WorldCom's language may suggest that Verizon is required to provide such UNEs throughout the term of the contract, notwithstanding any changes in law implemented through the contract's "change of law" provision.[1612] We consider the parties' specific contract language governing UNE combinations and change of law elsewhere in this

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[1608] WorldCom's November Proposed Agreement to Verizon, Part C, Attach. III, §1.1; *see also* WorldCom Brief at 129; 47 C.F.R. § 51.307 (a).

[1609] WorldCom Reply at 101.

[1610] Verizon's November Proposed Agreement to WorldCom, Part C, Network Elements Attach., §1.1.

[1611] *See* WorldCom's November Proposed Agreement to Verizon, Part C, Attach. III, §1.1. In pertinent part, WorldCom proposes language stating: "The obligations set forth in this Attachment III shall apply to such Network Elements: (i) available when this Agreement becomes effective; (ii) that subsequently become available; and (iii) in all cases to those features, functions, Combinations, and capabilities, the provision of which is Technically Feasible at such time as they are incorporated in unbundled Network Elements offered by Verizon."

[1612] *See id.*

Order, in Issues III-6 and IV-113/VI-1(E), and reject WorldCom's language to the extent it may contradict the language adopted with respect to those issues.

12. Issue IV-18 (Multiplexing/Concentrating Equipment)

a. Introduction

487. WorldCom requests that the interconnection agreement define multiplexing and concentrating equipment. It also argues that it is entitled to access multiplexing/concentrating equipment because it is a feature, function, or capability of unbundled local loops that enables it to transmit traffic economically. We note that WorldCom has abandoned its initial position that it is entitled to access the "Loop Concentrator/Multiplexer" as a network element, but has proposed no contract language reflecting its new position regarding access to this equipment.[1613] Verizon opposes WorldCom's arguments as well as its proposed contract language that would define the "Loop Concentrator/Multiplexer" as a network element. We rule for Verizon.

b. Positions of the Parties

488. WorldCom maintains that "multiplexing" is a term of art that WorldCom's proposed contract language defines accurately, and that detailed specification of the functionality, technical, and interface requirements of multiplexing equipment will eliminate ambiguity and minimize future disputes.[1614] WorldCom further argues that it is entitled to access multiplexing/concentrating equipment because it a "feature, function, or capability" of an unbundled local loop.[1615] It challenges the notion that it need only provide "multiplexing in the middle" (*i.e.*, multiplexing for links that have the same transmission capacity at either end).[1616] WorldCom asserts that the Commission's rules do not limit a requesting carrier to accessing only those features, functions, or capabilities that an incumbent happens to include in the middle of a local loop.[1617]

489. Verizon proposes language that would require it to provide WorldCom with access to unbundled local loops, among other network elements, "in accordance with . . . the

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[1613] Tr. at 495-98 (testimony of WorldCom witness Buzacott); *see also* WorldCom's Proposed November Proposed Agreement to Verizon, Part C, Attach. III, §§ 4.6-4.6.5.5, 4.18-4.18.4.4.

[1614] WorldCom Brief at 130, citing WorldCom Ex. 37 (Rebuttal Testimony of C. Goldfarb *et al.*), at 1-2.

[1615] WorldCom Ex. 12 (Direct Testimony of C. Goldfarb *et al.*), at 9, citing 47 C.F.R. § 51.319(a)(1) (unbundled local loop includes "all features, functions, and capabilities of such transmission facility . . . including attached electronics [other than DSLAMs]"); WorldCom Brief at 133, citing 47 C.F.R. § 51.307(c) ("An incumbent LEC shall provide a requesting telecommunications carrier access to an unbundled network element, along with all of the unbundled network element's features, functions, and capabilities").

[1616] WorldCom Ex. 25 (Rebuttal Testimony of C. Goldfarb *et al.*), at 2-3.

[1617] WorldCom Ex. 12, at 10; WorldCom Reply at 106.

requirements of Applicable Law" and "only to the extent required by Applicable Law."[1618] Verizon argues that multiplexing is not a stand-alone UNE and that it need only provide multiplexing "in the middle" of an unbundled local loop.[1619] Verizon also explains that it voluntarily offers multiplexing to competitive LECs as a stand-alone service that competitive LECs may access from their collocation arrangements.[1620] Verizon further states that it does not deploy concentration equipment in its central offices or outside plant and maintains that the interconnection agreement should not address this equipment.[1621]

c. Discussion

490. As explained above in Issue IV-15, we adopt Verizon's proposed section 1.1, finding it consistent with the Act and the Commission's rules.[1622] We note that, in Issue IV-18, WorldCom makes no claim that Verizon's language is inconsistent with section 251 of the Act or the Commission's rules implementing section 251.[1623] Because we find no such inconsistency and because WorldCom proposes no acceptable alternative,[1624] we accept Verizon's proposal. We note, however, that WorldCom *does* contest Verizon's characterization of its multiplexing obligations under "Applicable Law" in relation to unbundled local loops. For example, the parties appear to disagree over Verizon's obligation to provide multiplexing associated with cross-connects between local loops and collocated equipment.[1625] This debate over Verizon's obligations under the contract in particular circumstances relates to implementation of the agreement. While the parties apparently disagree on this implementation point, the specific question is not addressed by contract language proposed by either party for this issue and thus is not squarely presented.[1626] We emphasize that our adoption of Verizon's proposed contract language on this issue should not be interpreted as an endorsement of Verizon's substantive

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[1618] Verizon's November Proposed Agreement to WorldCom, Part C, Network Elements Attach., at § 1.1; *see* Verizon UNE Brief at 80.

[1619] Verizon Ex. 23 (Direct Testimony of M. Detch, *et al.*), at 4-5; Verizon UNE Brief at 75-76.

[1620] *See* Tr. at 412-15 (testimony of Verizon witness Fox); Verizon Ex. 23, at 5-6; Verizon UNE Brief at 74.

[1621] Verizon Ex. 23, at 6; Verizon UNE Brief at 79-80.

[1622] *See* Issue IV-15 *supra*; Verizon's November Proposed Agreement to WorldCom, Part C, Network Elements Attach., § 1.1. *See also* Issue III-6 *supra* (discussion of Verizon's proposed section 1.2).

[1623] *See* 47 U.S.C. § 252(c)(1).

[1624] In the separate context of Issue IV-21 (*see infra*), however, we adopt other language proposed by WorldCom regarding access to multiplexing as a feature of unbundled transport.

[1625] *See* WorldCom Reply at 107; *cf. Local Competition First Report and Order*, 11 FCC Rcd at 15693, para. 386 (requiring that an incumbent LEC must provide cross-connects between unbundled loops and collocated equipment under reasonable and nondiscriminatory rates, terms, and conditions).

[1626] *But see* Issue IV-21, *infra*, for a discussion of multiplexing as a feature of unbundled transport.

positions expressed in this proceeding regarding its multiplexing obligations under applicable law.

491. Although WorldCom appears to have abandoned its argument that the Commission should require Verizon to provide access to multiplexing as a new UNE, it has not withdrawn or modified the portion of its proposed language implementing this argument. We thus reject WorldCom's proposed contract language because it defines the "Loop Concentrator/-Multiplexer" as a network element, which the Commission has never done.[1627] We also reject the rest of WorldCom's extremely detailed proposed language because it entirely lacks support in the record. WorldCom has offered no basis for us to adopt, for example, its detailed "technical requirements" governing loop concentrator/multiplexers that, it argues, must be made available by Verizon. We further find that, to the extent that WorldCom is entitled to access multiplexing and concentrating functionalities in relation to the local loop, that entitlement is effectively incorporated into this agreement by reference to "Applicable Law."[1628]

13. Issue IV-21 (Unbundled Transport)

a. Introduction

492. WorldCom seeks language that would permit it access to dedicated transport that includes multiplexing functionality and the digital cross-connect functionality contained in Verizon's IntelliMux offering to interexchange carriers, and the ability to order dedicated transport to provide physical redundancy to its end users.[1629] WorldCom wants to ensure it receives the full features and functions of UNE dedicated transport and contends that physical diversity is necessary to protect its customers from systems failures. Verizon wants to avoid providing at UNE rates to WorldCom those facilities not designated by law as UNEs. We discuss multiplexing, digital cross-connect systems (DCS), and physical diversity separately. We adopt WorldCom's proposal but modify specific sections of WorldCom's proposed language.

493. According to WorldCom, the parties resolved their disagreement regarding shared transport early in this proceeding (prior to September 2001).[1630] We note, however, that Verizon's most recent proposed contract contains different language than the language

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[1627] WorldCom's November Proposed Agreement to Verizon, Part C, Attach. III, §§ 4.6 *et seq.* & 4.18 *et seq.* We note that WorldCom offered the latter proposal as an alternative. *Compare* WorldCom's proposed section 4.6 *et seq.* *with* Tr. at 494-95 (testimony of WorldCom witness Buzacott).

[1628] *See* Verizon's November Proposed Agreement to WorldCom, Part C, Network Elements Attach., § 1.1.

[1629] *See* WorldCom's November Proposed Agreement to Verizon, Part C, Attach. III, §§ 10.1.1, 10.1.4.1, 10.2.2, 10.2.4, 10.3, 10.3.1, 10.3.2.

[1630] *See* WorldCom Brief at 133; WorldCom Reply at 103; WorldCom Ex. 25 (Rebuttal Testimony C. Goldfarb *et al.*), 6-7.

WorldCom asserts the parties have agreed to.[1631] Verizon's proposed contract is the only record document that reflects this additional language, and the new language was not included in Verizon's other filings identifying proposed contract language.[1632] Moreover, Verizon has offered no support for this proposed language, and appears to agree that the parties have settled the shared transport dispute.[1633] Further, not one of Verizon's objections to WorldCom's proposed language under this issue pertains to shared transport. Therefore, we accept WorldCom's assertion and, in resolving Issue IV-21, we decide only those matters which the parties identify as disputed, as outlined below.

b. Transport and Multiplexing

(i) Positions of the Parties

494. WorldCom's proposed section 10.1.1 defines dedicated transport as "Verizon transmission facilities, including all Technically Feasible capacity-related services including, but not limited to, DS1, DS3 and OCn levels, dedicated to a particular customer or carrier, that provide telecommunications between wire centers owned by Verizon or requesting telecommunications carriers, or between switches owned by Verizon or requesting telecommunications carriers."[1634] WorldCom's proposed section 10.1.4.1 would obligate Verizon to provide WorldCom "exclusive use of Dedicated Transport facilities, features, functions, and capabilities." One of the included "features" of transport, according to WorldCom, is that it can be channelized. In order to support this feature, WorldCom argues that Verizon must provide it with the capability to configure these channels, which, WorldCom contends, is accomplished through the use of a multiplexer.[1635] WorldCom's proposed section 10.2.4 thus requires Verizon to offer multiplexing "together with, and separately from, Dedicated Transport."[1636] According to WorldCom, this reflects Verizon's obligation to provide multiplexing as a feature, function, and capability of UNE dedicated transport.[1637]

[1631] *See* Verizon's November Proposed Agreement to WorldCom, Part C, Network Elements Attach., §§ 10.1.1.1 & 10.2.1.1.

[1632] For example, this language was not contained in Verizon's briefs or in its November JDPL.

[1633] *See* Definitions Matrix, filed electronically by Verizon and WorldCom on June 14, 2002, for Issue IV-129. Also, Verizon has not challenged – in its briefs or testimony – WorldCom's assertion that this issue is resolved.

[1634] WorldCom's November Proposed Agreement to Verizon, Part C, Attach. III, § 10.1.1.

[1635] *Id.* at § 10.1.4.1; WorldCom Brief at 133-34.

[1636] WorldCom's November Proposed Agreement to Verizon, Part C, Attach. III, § 10.2.4

[1637] WorldCom Brief at 133. WorldCom cites section 51.307(c) of the rules in support of its position: "An incumbent LEC shall provide a requesting telecommunications carrier access to an unbundled network element, along with all of the unbundled network element's *features, functions, and capabilities*, in a manner that allows the requesting telecommunications carrier to provide any telecommunications service that can be offered by means of that network element." WorldCom Brief at 133, citing 47 C.F.R. § 51.307(c) (emphasis added by WorldCom).

495. WorldCom disputes Verizon's contention that its obligation is limited to providing only "multiplexing in the middle" – that is, providing only multiplexing for circuits that have the same transmission capacity at either end.[1638] WorldCom asserts that this limitation has no basis in the Commission's rules,[1639] and that aggregating lower bandwidth signals onto higher bandwidth circuits is the essence of multiplexing.[1640] According to WorldCom, when a competitive LEC orders DS-3 UNE transport, Verizon acknowledges it must provide multiplexing necessary to aggregate the competitive LEC's traffic onto that facility, and then to disaggregate the traffic at the other end of the transport facility.[1641] WorldCom maintains that this scenario is no different from one in which a requesting competitive LEC requires multiplexing from DS-1 circuits onto DS-3 circuits and vice versa.[1642] Thus, WorldCom argues that, if a competitive LEC orders DS-3 transport, Verizon must provide the necessary multiplexing to configure DS-1 and DS-0 channels within that DS-3.[1643] Finally, WorldCom contends that the Commission's rules do not require it to collocate its facilities at a particular end office in order to obtain transport to or from that end office.[1644]

496. Verizon recognizes that multiplexing is an inherent part of dedicated transport,[1645] and suggests that it is thus required to provide multiplexing "in the middle" of transport facilities, but not "*at the termination*" of dedicated transport facilities.[1646] For example, if WorldCom orders DS1 transport, Verizon agrees to transmit that traffic within its network, providing "multiplexing as necessary to achieve efficient transmission," and terminating that traffic "at WorldCom's collocation facilities at a DS-1 level, as ordered."[1647] In seeking multiplexing "at the termination" of dedicated transport facilities, however, Verizon contends that WorldCom

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[1638] WorldCom Brief at 135; WorldCom Reply at 105. WorldCom challenges Verizon's refusal "to terminate WorldCom's unbundled dedicated transport into a multiplexer for the purpose of aggregating the existing signals onto a higher bandwidth facility and disaggregating the signal into lower bandwidth." WorldCom Reply at 105-06, citing Verizon UNE Brief at 76.

[1639] WorldCom Reply at 105.

[1640] WorldCom Brief at 135; WorldCom Reply at 105.

[1641] WorldCom Brief at 135.

[1642] *Id.*

[1643] *Id.* at 134. WorldCom also argues that the Commission includes a specific type of multiplexing equipment as an example of the electronics that are encompassed by the definition of transport. WorldCom Brief at 136, citing *UNE Remand Order*, 15 FCC Rcd at 3842-43, para. 323 n.637.

[1644] WorldCom Reply at 107. We resolve issues relating to collocation within the context of Issues III-8 and V-2, *supra*, where parties have proposed contract language relating to collocation.

[1645] Verizon UNE Brief at 74.

[1646] *Id.* at 75-76 (emphasis added by Verizon); Verizon UNE Reply at 42.

[1647] Verizon UNE Reply at 42-43.

treats the multiplexer like a separate UNE.[1648] Verizon argues it has no obligation to terminate UNE dedicated transport into a multiplexer in order to aggregate the existing signal onto a higher bandwidth or disaggregate it onto a lower bandwidth.[1649] Verizon contends that terminating UNE transport into a multiplexer does not render that multiplexer a feature of transport, but instead is an additional service that Verizon is under no obligation to provide.[1650] Verizon also maintains that it is under no obligation to provide UNE transport at multiple transmission speeds.[1651] Verizon indicates, however, that, pursuant to its proposed language, it voluntarily offers multiplexing to collocated carriers, separate from unbundled loops and transport, in two circumstances: DS-3 to DS-1, and DS-1 to DS-0.[1652]

(ii) Discussion

497. We adopt WorldCom's proposed language for sections 10.1.1 and 10.1.4.1, and we adopt a modified version of WorldCom's proposed section 10.2.4.[1653] We find that WorldCom's proposed language, as modified, meets the requirements of section 251 and the Commission's rules.[1654] We reject Verizon's proposed language defining dedicated transport.[1655] While Verizon's language appears in its proposed contract, Verizon fails to explain its proposal, and it is unclear whether this language is designed to have any effect beyond defining dedicated transport in accordance with applicable law.

498. We adopt WorldCom's proposed section 10.1.1 and 10.1.4.1 because we find this language closely tracks the Commission's rules governing the definition and characteristics of unbundled transport. Specifically, incumbent LECs must provide UNE dedicated transport, including all technically feasible capacity-related services (*e.g.*, DS-1, DS-3, and OC-n levels) that provide telecommunications between wire centers or switches owned by incumbent LECs or

[1648] Verizon UNE Brief at 74-75 (emphasis omitted).

[1649] *Id.* at 76.

[1650] Verizon UNE Reply at 42-43.

[1651] Verizon UNE Brief at 76 n.97.

[1652] *Id.* at 76. "This multiplexing is offered separate and apart from unbundled loops and unbundled interoffice transport and can be accessed by a CLEC from a collocation arrangement." *Id.*

[1653] WorldCom's November Proposed Agreement to Verizon, Part C, Attach. III, §§ 10.1.1, 10.1.4.1, & 10.2.4.

[1654] WorldCom has claimed, in its motion to strike, that Verizon inappropriately introduced new language or new disputes in its November 2001 JDPL filing. *See* WorldCom Reply at 103. *See also* WorldCom Motion to Strike, Ex. A at 27. Because we do not adopt Verizon's language, any such claims are moot with regard to Issue IV-21.

[1655] Verizon's November Proposed Agreement to WorldCom, Part C, Network Elements Attach., § 10.2.1.1.

requesting telecommunications carriers.[1656] This includes all electronics necessary to the functionality of capacity-related services.[1657]

499. We also adopt WorldCom's proposed section 10.2.4 (except as modified below). We agree with WorldCom that Verizon must provide multiplexing "together with" dedicated transport. We reject Verizon's contention that it is not required to multiplex DS-1 circuits onto DS-3 transport or terminate transport into multiplexing equipment in its wire centers. To the extent that multiplexers are necessary to endow a transmission facility with DS-1 or DS-3 capability, for example, the rules do not distinguish multiplexing "in the middle" of the transport facility from multiplexing at the termination of the transport facility.[1658] Therefore, in order to provide the channelizing functionality of dedicated transport, Verizon must provide multiplexing at the termination of the facility if WorldCom so requests. Further, Verizon is incorrect to assert that it need not provide UNE transport at multiple transmission speeds: the rules contemplate that incumbent LECs will provision transport to competitive LECs at whatever bandwidths the incumbent provides in its own network.[1659]

500. We agree with Verizon, however, that WorldCom's section 10.2.4 appears to obligate Verizon to provide multiplexing as a separate element.[1660] Section 10.2.4 provides that "Verizon shall offer DCS and multiplexing, both together with, and separately from Dedicated Transport." WorldCom has not explained what it means to provide multiplexing "separately from" transport, or why it is entitled to this, and we find that inclusion of this language is inconsistent with its holding that WorldCom is entitled to multiplexing as a "feature" of

[1656] The Commission determined that UNE dedicated transport constitutes "incumbent LEC transmission facilities, including all technically feasible capacity-related services including, but not limited to, DS1, DS3 and OCn levels, dedicated to a particular customer or carrier, that provide telecommunications between wire centers owned by incumbent LECs or requesting telecommunications carriers, or between switches owned by incumbent LECs or requesting telecommunications carriers." 47 C.F.R. § 51.319(d)(1)(i). Incumbents must "unbundle DS1 through OC192 dedicated transport offerings and such higher capacities as evolve over time." *UNE Remand Order,* 15 FCC Rcd at 3843, para. 323.

[1657] By "technically feasible capacity-related services," the Commission means "those provided by electronics that are necessary components of the functionality of capacity-related services and are used to originate and terminate telecommunications services." *UNE Remand Order,* 15 FCC Rcd at 3842, para. 323. *See* 47 C.F.R. § 51.307(c).

[1658] Multiplexing also is a feature of the loop UNE, and the Commission's treatment of it in this context is instructive. The Commission included multiplexing equipment in the definition of the loop, finding that "excluding such equipment from the definition of the loop would limit the functionality of the loop." *UNE Remand Order*, 15 FCC Rcd at 3776, para. 175. Verizon cannot refuse to provision a particular loop by claiming that multiplexing equipment is absent from the facility. In that case, Verizon must provide the multiplexing equipment, because the requesting carrier is entitled to a fully-functioning loop. So too is it for dedicated transport.

[1659] *See UNE Remand Order,* 15 FCC Rcd at 3842-43, para. 323-24. The *UNE Remand Order* states that "an incumbent LEC's unbundling obligation extends throughout it ubiquitous transport network, including ring transport architectures." *UNE Remand Order*, 15 FCC Rcd at 3843, para 324. *See also UNE Remand Order*, 15 FCC Rcd at 3861-62, paras. 366-68.

[1660] WorldCom's November Proposed Agreement to Verizon, Part C, Attach. III, § 10.2.4.

transport. We thus instruct the parties to modify this sentence to read: "At the request of MCIm, Verizon shall offer DCS and/or multiplexing together with Dedicated Transport."[1661] Contrary to Verizon's argument, the modified WorldCom language we adopt correctly states that DCS and multiplexing are features of UNE dedicated transport, but does not establish multiplexing equipment as a separate UNE. Therefore, it is irrelevant that the Commission has not performed "necessary" or "impair" analysis for multiplexers.[1662] Rather, the multiplexer is a feature, function, or capability of dedicated transport, for which the Commission has performed the requisite analysis.[1663] Similarly, because multiplexers are not separate elements, using them in conjunction with transport does not, as Verizon suggests, establish a new UNE combination.

c. Digital Cross-connect Systems

(i) Positions of the Parties

501. WorldCom's proposed section 10.3 would require Verizon to permit WorldCom "to the extent Technically Feasible, to obtain the functionality provided by Verizon's DCS in the same manner that Verizon provides such functionality to interexchange carriers."[1664] WorldCom's proposed section 10.2.4 would require Verizon to provide DCS "both together with, and separately from Dedicated Transport."[1665] WorldCom contends that DCS is a feature of dedicated transport, and suggests that its proposal closely tracks the Commission's rules regarding the provision of DCS.[1666]

502. WorldCom also proposes, in sections 10.3.1 and 10.3.2, detailed language establishing the technical requirements of DCS that Verizon must provide.[1667] A key aspect of these sections is the requirement that Verizon provide to WorldCom the capabilities of its "IntelliMux" system (a system that includes DCS functionality, currently provided by Verizon to IXCs). WorldCom argues that, through Verizon's "IntelliMux" system, Verizon permits IXCs to

[1661] To avoid possible ambiguity, we have added language to section 10.2.4, as indicated, to reflect that WorldCom may request dedicated transport with, or without, multiplexing or DCS at the end of a dedicated transport facility. *See* WorldCom Reply at 106; *see also* AT&T/WorldCom Cost Initial Brief at 191.

[1662] These distinct standards, which the Commission uses to identify UNEs, focus on whether lack of access to an element would preclude or materially diminish a carrier's ability to provide a service. *See UNE Remand Order*, 15 FCC Rcd at 3704-05, Executive Summary.

[1663] *Id.*, 15 FCC Rcd at 3842, para. 321.

[1664] WorldCom's November Proposed Agreement to Verizon, Part C, Attach. III, § 10.3.

[1665] *Id.* at § 10.2.4.

[1666] WorldCom Brief at 136-37, citing Tr. at 517-18; WorldCom Reply at 108, citing 47 C.F.R. § 51.319(d)(2)(iv). *See also* WorldCom's November Proposed Agreement to Verizon, Part C, Attach. III, § 10.2.4.

[1667] WorldCom's November Proposed Agreement to Verizon, Part C, Attach. III, §§ 10.3.1 and 10.3.2.

communicate instructions to DCS.[1668] WorldCom contends that if IXCs have access to the DCS functionality of IntelliMux, they are not limited merely to the DCS functionality "inherent" in UNE transport, as Verizon asserts.[1669] Accordingly, WorldCom maintains that because IntelliMux is a manner in which Verizon provides IXCs access to DCS, Verizon also must offer the capabilities of IntelliMux to competitive LECs.[1670] Finally, WorldCom contends that this language is identical to provisions in its current agreement with Verizon.[1671]

503. WorldCom further complains that Verizon's position would require WorldCom to order both transport and DCS out of Verizon's access tariffs, because Verizon will not provide the IntelliMux functionality as the DCS feature of UNE dedicated transport, nor will Verizon permit WorldCom to "commingle" tariffed DCS with UNE transport.[1672] Therefore, WorldCom contends that Verizon would leave WorldCom no choice but to order both transport and DCS out of Verizon's tariffs.[1673]

504. According to Verizon, WorldCom's language would essentially require Verizon to provide DCS as a separate UNE. Verizon argues that, while DCS is an inherent part of dedicated transport, it is not a separate UNE.[1674] Verizon asserts that it provides DCS to WorldCom in the same manner as it does to IXCs.[1675] It contends, however, that it does not provide DCS to IXCs on an unbundled basis; therefore it need not provide DCS to WorldCom on an unbundled basis.[1676]

505. Verizon further contends that its IntelliMux system is not a functionality of UNE transport, and that IntelliMux provides a variety of features in addition to DCS, such as network reconfiguration, customer management, mileage and port charges, channel terminations, and

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[1668] WorldCom Brief at 137, citing Verizon's Tariff FCC No. 1.

[1669] WorldCom Reply at 109.

[1670] WorldCom Brief at 137; WorldCom Reply at 108-09.

[1671] WorldCom Brief at 137, citing Tr. at 517-18.

[1672] WorldCom Reply at 109.

[1673] *Id.*

[1674] Verizon UNE Brief at 74, 77.

[1675] *Id.*, citing 47 C.F.R. 51.319(d)(2)(iv). Verizon argues that it provides transport to IXCs and relies on the use of DCS within its transport network. *Id.* at 77. *See also* Verizon Ex. 9 (Direct Testimony of M. Detch *et al.*), at 3-8 (arguing that to the extent DCS is present in the interoffice infrastructure underlying the transport facilities, this is how it provides DCS to IXCs.)

[1676] Verizon UNE Brief at 77.

database modifications.[1677] Therefore, Verizon maintains that IntelliMux is not equivalent to the DCS functionality that Verizon provides to IXCs and competitive LECs.[1678]

(ii) Discussion

506. We adopt WorldCom's proposed language in sections 10.3, 10.3.1, and 10.3.2,[1679] and, as we indicate previously in our discussion, we adopt a modified version of WorldCom's language in section 10.2.4. We find that WorldCom's proposed section 10.3 closely tracks the Commission's rules, which require an incumbent LEC to permit, to the extent technically feasible, a requesting telecommunications carrier to obtain the functionality provided by the incumbent LEC's DCS in the same manner as IXCs obtain the functionality of the incumbent LEC's DCS.[1680] Verizon concedes that it provides DCS functionality to IXCs, albeit packaged with other functionality, through its IntelliMux service.[1681] We reject Verizon's argument that, by packaging DCS functionality with other services, Verizon is somehow excused from its obligations with respect to DCS.[1682] Moreover, Verizon does not argue that WorldCom's proposed sections 10.3.1 and 10.3.2 request access to specific IntelliMux capabilities other than DCS features. We also note that Verizon does not demonstrate or argue that providing the capabilities of IntelliMux to WorldCom is technically infeasible. Therefore, we agree that Verizon must provide the DCS capabilities of IntelliMux to WorldCom. Finally, we also reject Verizon's argument that WorldCom's section 10.2.4, as modified above to make clear that DCS is offered "together with" dedicated transport, would establish DCS as a separate UNE.[1683]

[1677] *Id.* at 77-78, citing Tr. at 507. According to Verizon, IntelliMux is "not access to DCS but access to a service that is far more than" DCS. *Id.* at 78, citing Tr. at 507. Verizon indicates, "The cross-connect system happens to be what makes the cross-connect. The service is a management service for channels." *Id.*

[1678] *Id.* at 78.

[1679] WorldCom's November Proposed Agreement to Verizon, Part C, Attach. III, §§ 10.3, 10.3.1, and 10.3.2.

[1680] According to the Commission's rules, the incumbent LEC shall "[p]ermit, to the extent technically feasible, a requesting telecommunications carrier to obtain the functionality provided by the incumbent LEC's digital cross-connect systems in the same manner that the incumbent LEC provides such functionality to interexchange carriers." 47 C.F.R. § 51.319(d)(2)(iv); *see Local Competition First Report and Order,* 11 FCC Rcd at 15719-20, paras. 444-45.

[1681] *See* Verizon UNE Brief at 77-78, citing Tr. at 507.

[1682] We are not persuaded by Verizon's characterization of IntelliMux as something fundamentally different than DCS. Verizon argues that IntelliMux is much more than DCS, but including the additional functions that Verizon enumerates does not render IntelliMux distinct from DCS.

[1683] Similarly, combining IntelliMux with dedicated transport does not render it a new UNE combination.

d. Physical Diversity of Facilities

(i) Positions of the Parties

507. WorldCom's proposed section 10.2.2 provides that "Verizon will provide such physical diversity where it is available, at Verizon's prevailing additional charge, if any. If physical diversity is not reasonably available in response to [WorldCom's] request, then [WorldCom] may order such additional physical diversity by submitting a request for special construction."[1684] According to WorldCom, this language would permit it to purchase UNE dedicated transport, or facilities ordered out of Verizon's tariffs, in order to provide physical redundancy to its end users.[1685] WorldCom contends that its proposed language would permit it, when physically diverse facilities are not available, to order new facilities out of Verizon's interstate and intrastate tariffs as "special construction," at tariffed rates, and to use these facilities in combination with UNEs to achieve physical diversity.[1686] According to WorldCom, this request is technically feasible and not precluded by the Commission's rules or relevant case law.[1687] WorldCom also points out that Verizon provides redundancy for its retail customers, so it would be discriminatory for Verizon to refuse to do the same for WorldCom.[1688] WorldCom disputes Verizon's contention that WorldCom's language would impermissibly allow the use of UNEs in conjunction with tariffed services, arguing that the enhanced extended link (EEL) is the only context in which incumbent LECs may refuse to permit competitive LECs to employ UNEs and tariffed services together.[1689]

508. Verizon argues that there is no basis for WorldCom's proposal that Verizon construct "additional physical diversity" in response to a WorldCom request for special construction.[1690] Verizon contends that a competitive LEC is entitled to "access only to an incumbent LEC's existing network – not to a yet unbuilt superior one."[1691] Verizon maintains that the Commission's *UNE Remand Order* supports Verizon's position by declining to "require incumbent LECs to construct new transport facilities to meet specific competitive point-to-point

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[1684] WorldCom's November Proposed Agreement to Verizon, Part C, Attach. III, § 10.2.2.

[1685] WorldCom Brief at 137-38; WorldCom's November Proposed Agreement to Verizon, Part C, Attach. III, § 10.2.2.

[1686] WorldCom Brief at 138.

[1687] *Id.*; WorldCom Reply at 110-11, referring to *Iowa Utils. Bd. v. FCC*, 120 F.3d 753 (8th Cir. 1997) and *UNE Remand Order*, 15 FCC Rcd 3696 (1999).

[1688] WorldCom Reply at 110.

[1689] WorldCom Brief at 138; WorldCom Reply at 111.

[1690] Verizon UNE Brief at 78.

[1691] *Id.*, citing *Iowa Utils. Bd. v. FCC*, 120 F.3d at 813.

demand requirements for facilities that the incumbent LEC has not deployed for its own use."[1692] According to Verizon, it need not enhance its own system to accommodate WorldCom, nor must it act as WorldCom's construction department.[1693]

509. Verizon submits that WorldCom may permissibly seek to acquire a diverse route by ordering a second circuit and possibly turn that circuit into a diverse route within its collocation arrangement.[1694] Verizon also suggests that WorldCom could order special access or special construction as long as the new special access circuit does not "commingle" with UNEs.[1695] In addition, Verizon argues that diversity is a special service that Verizon provides to its own end users, but is under no obligation to provide to WorldCom.[1696]

(ii) Discussion

510. We adopt WorldCom's proposed language in section 10.2.2.[1697] We find that WorldCom's proposal, as clarified by WorldCom and as interpreted in the following discussion, is consistent with section 251 and the Commission's rules. In addition, we find that Verizon's objections are unfounded. First, we find that WorldCom's language, contrary to Verizon's assertion, does not require Verizon to construct a "superior" network. WorldCom's proposed language enables it only to request special construction as set forth in Verizon's special access tariffs – and Verizon does not suggest that such special construction is inconsistent with the Act or the Commission's rules. Second, we disagree with Verizon's argument that WorldCom's language is impermissible because it allows "commingling" of UNEs with a special access service. While the Commission's rules provide such a restriction with respect to EELs, this restriction does not apply generally to all UNEs.[1698]

511. We decline to elaborate further on the extent to which WorldCom may seek to engineer diverse routing in its network by using a combination of UNE transport and special access circuits. WorldCom has not explained whether it seeks to combine these circuits through a collocation cage, or whether it would require additional switching or other functionality from Verizon to engineer diversity in the event of a cable cut or other outage. WorldCom also does not explain whether it seeks any *guarantee* of diversity from Verizon. We limit its interpretation of WorldCom's language to the specifics mentioned above and, beyond that, we find that

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[1692] Verizon UNE Brief at 78-79, citing *UNE Remand Order*, 15 FCC Rcd at 3843, para. 324.

[1693] *Id.* at 78-79.

[1694] *Id.* at 79.

[1695] *Id.*.

[1696] *Id.*

[1697] WorldCom's November Proposed Agreement to Verizon, Part C, Attach. III, § 10.2.2.

[1698] *See Supplemental Order Clarification*, 15 FCC Rcd 9587 (2000).

WorldCom's ability to engineer diversity using UNEs and special access circuits must be subject to the terms of Verizon's special access tariffs and applicable law.

14. Issue IV-23 (Line Information Database)

a. Introduction

512. Pursuant to Commission rules, Verizon is required to provide requesting carriers with nondiscriminatory access to its call-related databases, including its Line Information Database (LIDB).[1699] In its response to WorldCom's motion to strike certain Verizon contract language contained in the November JDPL, which includes language found in Issue IV-23, Verizon states that it modified its LIDB proposal to reflect its agreement in principle with WorldCom.[1700] Verizon further indicates that it continues to reject portions of WorldCom's proposal and that the remaining substantive dispute was the subject of testimony.[1701] For reasons explained below, we adopt WorldCom's contract language.

b. Discussion

513. Based on our review of the contracts filed by the parties, it appears that only one section, WorldCom's proposed Attachment III, section 13.2.2, remains in dispute.[1702] This provision requires Verizon to provide physical interconnection to its databases through existing interfaces and industry standard interfaces and protocols.[1703] We note that this exact requirement is contained in the parties' current interconnection agreement.[1704] Verizon fails to indicate why it opposes this provision (*e.g.*, why this requirement is inconsistent with existing law, or how its current requirement has proven onerous or is unnecessary) and absent any record on this particular issue, we determine that this existing obligation is reasonable and should be included in the parties' contract.[1705]

[1699] 47 C.F.R. § 51.319(e)(2)(i).

[1700] *See* Verizon Response to WorldCom Motion to Strike, Ex. C at 2.

[1701] *Id.*

[1702] *See* WorldCom's November Proposed Agreement to Verizon, Part C, Attach. III, § 13.2.2; Verizon's November Proposed Agreement to WorldCom, Part C, Network Elements Attach., § 11.4.2.1 (Verizon's statement in bold type explaining that Verizon does not agree with the next subsection of WorldCom's proposal and, therefore, deleted it from its proposed contract).

[1703] WorldCom's November Proposed Agreement to Verizon, Attach. III, § 13.2.2.

[1704] *See* WorldCom Pet., Ex. D (Interconnection Agreement Governing Current Relations), Attach. III, § 13.2.2.

[1705] Consequently, we determine that WorldCom's motion to strike is moot with respect to this issue because we adopt WorldCom's proposal. *See* WorldCom Motion to Strike, Ex. A at 29-33.